



## NEW ZEALAND

# Shared infrastructure helps boost rural mobile broadband coverage

### Key lessons

- Rural coverage improvements can be achieved through government funding and collaboration between all MNOs;
- Innovative approaches to deploy real-world, high-speed mobile broadband in rural areas are possible through technical collaboration and the MNOs know-how; and
- Sharing mobile base stations in rural areas helps drive a rapid rollout.

### Background

With a sizeable farming and rural population and many extremely remote areas, providing ubiquitous connectivity to all New Zealanders is challenging. As of 2011, only 20 per cent of New Zealand's rural homes and businesses had access to broadband peak speeds of at least 5 Mbps.<sup>1</sup>

In 2010, the Government of New Zealand initiated its Rural Broadband Initiative, with the initial aim to provide 630,000 people living in the country's hardest to connect rural areas with access to high-speed broadband and connectivity. In rural areas where MNOs had not invested in coverage, funding from a universal service fund – the Telecommunications Development Levy (TDL), was used.

The largest proportion of this funding was directed at drastically expanding fibre connectivity (which included improved backhaul availability beyond major cities). However, improved mobile network connectivity was also a priority, particularly in subsequent phases of the initiative.

1. [www.centreforpublicimpact.org/case-study/rural-broadband-initiative-in-new-zealand/](http://www.centreforpublicimpact.org/case-study/rural-broadband-initiative-in-new-zealand/)







## How did New Zealand improve rural coverage?

More than NZ\$430 million in USF funds, across two phases, have been allocated to the initiative. During the first phase, fibre provider Chorus upgraded more than 1200 cabinets and extended fixed line coverage to more than 110,000 rural households and businesses, 1000 schools and 39 hospitals and health centres. Concurrently, mobile operator Vodafone built more than 150 new rural towers and upgraded close to 400 existing towers to provide fixed wireless broadband. The first phase was completed in 2016.<sup>2</sup>

Phase 2 will extend high-speed broadband to over 70,000 rural households and businesses, with contractual agreements being managed by state-owned company Crown Infrastructure Partners. Concurrently, the Mobile Black Spot Fund (MBSF) will provide 4G and wireless broadband connectivity to at least 38,000 rural homes and businesses, roughly 1,200 kilometres of state highway and over 150 tourism areas. This phase is expected to be completed by December 2022.

The MBSF is also funded via the Telecommunications Development Levy. The Rural Connectivity Group (RCG) was established by all three of the country's MNOs as an independent entity to build mobile, operate and maintain rural network infrastructure in partnership with Crown Infrastructure Partners.<sup>3</sup> The RCG deploys a single RAN to connect to each MNO core network, reducing operating expenditure for each MNO by avoiding redundancies in rural network infrastructure.<sup>4</sup>

Currently, 95 per cent of New Zealanders currently have mobile coverage, but under the MBSF, all three MNOs can access every site. Therefore, extended coverage and services will be accessible to all consumers, regardless of their provider.

2. [www.mobileworldlive.com/asia/asia-news/nz-operators-partner-to-expand-rural-connectivity/](http://www.mobileworldlive.com/asia/asia-news/nz-operators-partner-to-expand-rural-connectivity/)

3. [www.crowninfrastructure.govt.nz/blackspots/what/](http://www.crowninfrastructure.govt.nz/blackspots/what/)

4. [www.mobileworldlive.com/asia/asia-news/nz-operators-partner-to-expand-rural-connectivity/](http://www.mobileworldlive.com/asia/asia-news/nz-operators-partner-to-expand-rural-connectivity/)



## Impact

As of December 2019, Phase 2 has achieved 46 per cent of its target to provide high-speed broadband of at least 20 Mbps to approximately 84,000 households and businesses. It is on track to be completed by 2023. MBSF has covered 17 per cent of its target to cover 1,400 km of rural state highways with 4G coverage and is on track to be completed by 2023.<sup>5</sup>

New Zealand also acknowledges that to be a world leading digital nation, in addition to expand access infrastructure, investment in digital literacy is key. For this purpose, New Zealand is investing in a Digital Inclusion Blueprint; a digital inclusion programme planned to ensure there is investment in capabilities of people and businesses to participate and receive benefits from connectivity.

5. [www.mbie.govt.nz/dmsdocument/10378-connectivity-in-new-zealand-proactiverelease-pdf](http://www.mbie.govt.nz/dmsdocument/10378-connectivity-in-new-zealand-proactiverelease-pdf)

## Read more:

[crowninfrastructure.govt.nz/blackspots/who/](https://crowninfrastructure.govt.nz/blackspots/who/)

[crowninfrastructure.govt.nz/rural/what/](https://crowninfrastructure.govt.nz/rural/what/)

[centreforpublicimpact.org/case-study/rural-broadband-initiative-in-new-zealand/](https://centreforpublicimpact.org/case-study/rural-broadband-initiative-in-new-zealand/)

[mbie.govt.nz/science-and-technology/it-communications-and-broadband/fast-broadband/broadband-and-mobile-programmes/](https://mbie.govt.nz/science-and-technology/it-communications-and-broadband/fast-broadband/broadband-and-mobile-programmes/)

[crowninfrastructure.govt.nz/wp-content/uploads/2018/07/UFB-and-RBI-programmes-fact-sheet-7-March-2018.pdf](https://crowninfrastructure.govt.nz/wp-content/uploads/2018/07/UFB-and-RBI-programmes-fact-sheet-7-March-2018.pdf)

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**[gsma.com/expanding-mobile-coverage](https://gsma.com/expanding-mobile-coverage)**